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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/508,878	03/16/2000	GUSTAVO FERNANDEZ	P00.0449	3536
29177	7590	01/28/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC			D AGOSTA, STEPHEN M	
P. O. BOX 1135			ART UNIT	PAPER NUMBER
CHICAGO, IL 60690-1135			2683	
DATE MAILED: 01/28/2004				

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/508,878	FERNANDEZ ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Stephen M. D'Agosta	2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 January 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 2-10 and 12-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 14 is/are allowed.
- 6) Claim(s) 2-10, 12, 13 and 15-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                               | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 1-8-04 have been fully considered but they are not persuasive:

1. **Claim 14 has been allowed** – based upon it's detailed design that specifically discusses the use/operation of confirmation units, chargers, local connection via first/second chargers, use of data frames and control units.
2. **Independent claims 12, 13, 15 and 25 still stand rejected.** Amending the claims to a state that reflects the design of claim 14 may result in a more favorable outcome.
3. The applicant argues (claim 12) that prior art does not teach transmitting a request for ID with acknowledgement signal. The examiner disagrees for several reasons: 1) Johnston teaches a request for an ID and acknowledgement being sent (C5, L40-42 and C5, L49-50 respectively). 2) Authentication procedures are well known in the art and can vary greatly, yet would still read on this claim – eg. logging on to a computer requires use of an ID and acknowledgement via successful logon event, logging onto a cellular/cordless phone have challenges built in to verify the user as well.
4. The applicant argues the local connection is not taught. The examiner disagrees since he broadly interprets a connection other than an RF connection as a local connection. Hence, Haraguchi's use of a data connection between phone and cradle/charging contacts to transmit data reads on the claim. Further, the use of a local connection would be used for security reasons to mitigate a hacker's attempt at discovering the phone's ID (eg. or one skilled would just encrypt the RF signal).
5. The applicant argues that memorizing the received echoed back ID is not taught. The examiner disagrees since Saegusa does teach storing of data in an EEPROM (abstract). Since Saegusa teaches capability of storing data, one skilled would provide for storing the echoed ID, phone number or any ID used by the phone (eg. present, past, future).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 12, 2-6, 8-10, 13 and 25** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al. U.S. Patent 5,787,360, Saegusa et al. U.S. Patent 4,864,599 and Haraguchi US Patent 4,979,205 (hereafter referred to as Johnston, Saegusa and Haraguchi).

As per **claims 12, and 15**, Johnston teaches a method for logging a mobile unit on at a base station comprising the steps of:

recognizing a logon situation wherein at least one of the mobile unit and the base station determines that the mobile unit is not yet logged on at the base station (C5, L34-36 and L40-42);

generating an identifier (C5, L49-52 – ID is generated);

transmitting the identifier via a radio connection between the mobile unit and the base station (C5, L49-52 – ID is sent);

requesting transmitting a request for identification with an acknowledgement signal via transmission over the radio connection between the mobile unit and the base station (C5, L40-42 – Request for ID and C5, L49-50 – acknowledgement sent)

local connection (a connection between mobile unit and base station only operates in a relatively short-range distance (C5, L21-23). So this limitation is interpreted to be a local connection)

but is silent on transmitting the acknowledgement signal separate from the radio connection AND echoing back the identifier via the radio connection between the mobile and base station and memorizing the received echoed back identifier

acknowledging the receipt of the echoed back identifier via the radio connection between the mobile and base station.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the “setup signal” (C3, L48-67 to C4, L1-10) and storing of the identification numbers in electrically EPROM (abstract). This verification operation is required to avoid interference (C1, L11-23) from other wireless devices. Saegusa teaches transmission of ID number(s) AND verifying that they were correctly received which reads on echoing back/acknowledgement. The examiner notes that the “echo back” procedure is merely an added step furthering the security process which is not

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novel (eg. a design choice – there is a trade-off between how long it will take to authenticate a user versus how much security checking is required). There can be more steps or less steps regarding how the system authenticates the user, each of which would read on the claimed invention except for the fact that one uses more/less security checking.

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the cordless phone sends an acknowledgement to the base station separate from the radio connection, to ensure that the base station knows the cordless phone has received the registration information.

As per **claims 2 and 16**, Johnston teaches the method according to claim 12, wherein the local connection is electrical (eg. RF or wired) [C5, L36-38], infrared or “other communications technology” (C17, L15-17) which would allow for the group consisting of a magnetic connection, an inductive connection and an optical connection.

As per **claims 4 and 18**, Johnston teaches the method according to claim 12, the radio unit contacts the home base station via RF or temporary wired connection (which would be a digital/binary connection) (C5, L34-39) [eg. wherein a binary signal is transmitted via the local connection]. Note that the RF link, for example, would also have two (binary) states through the use of amplitude/frequency modulation.

As per **claims 8 and 22**, Johnston teaches the method according to claim 12, but is silent on wherein the acknowledgment signal is generated by the mobile unit and is transmitted to the base station.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the “setup signal” (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23) of other wireless devices.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that an acknowledgment signal is generated by the mobile unit and is transmitted to the base station, for situations that require the base station to know if the mobile unit received the identification number or to retransmit it again.

As per **claims 9 and 23**, Johnston teaches the method according to claim 12, but is silent on wherein the acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection.

One skilled in the art of communications knows that it is customary to use timers/time-out periods for situations that require logon, authentication, etc.. This eliminates the possibility of endlessly waiting for a positive acknowledgement. Many automated systems (ie. ATMs, Voicemail, IVR's, etc.) provide a timer that will cancel a

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session should a response not occur within a specified time limit (ie. the user does not provide his/her ATM/Voicemail PIN or IVR account number). Hence, one skilled in the art would use a predetermined time interval to repeat the acknowledgement process should it fail. [Note that Johnston does allude to excessive delay for the propagation of voice signals, C13, L5-24].

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection, to eliminate possibility of an endless wait state during login/authentication.

As per **claims 10 and 24**, Johnston teaches the method according to claim 12 **but is silent on** further comprising the step of: transmitting logon data via radio connection.

Johnston does teach the invention supporting computing devices such as mobile laptop computers (figure 1, #18) which can connect to a LAN interface (C3, L45-52) for data communications. One skilled in the art of computer networking knows that a user must logon to a LAN before it can send data via the LAN. Hence, logon data would be transmitted via the radio connection as the user logs-in to the server.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that logon data is transmitted via the radio connection, to provide a mobile computer/PDA user the ability to logon to a LAN and transmit/receive data.

As per **claims 13 and 25**, Johnston teaches a communication system having at least one mobile unit and at least one base station (figure 1 shows phones #14 and base stations #12), comprising:

a means for recognizing a logon situation (C5, L34-40 teaches that a radio unit cannot operate before it subscribes to a base station as its home base station);

a means for generating an identifier (C5, L49-52 – base station's control unit sends identifier to mobile unit after it requests one);

a radio connection between the at least one mobile unit and the at least one base station (C5, L40-42 – radio unit contacts base station for identifier);

a local connection separate from the radio connection between the at least one mobile unit and the at least one base station (C5, L36-37 – mobile unit must be "within range" of the base station);

a first means for transmitting the identifier via radio connection (C5, L49-52 – base station controller uses radio link to send identifier); and

a second means for transmitting a request for identification signal via the radio connection (C5, L40-42 – request for identification); and

a third means for transmitting acknowledgement via the local connection (C5, L36-37 – mobile unit must be "within range" of the base station and C5, L49-52 for transmission of acknowledgement);

**But is silent on:** (second means) with an acknowledgment a fourth means for echoing back the identifier via the radio connection between the mobile and base station and memorizing the received echoed back identifier

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A fifth means for acknowledging the receipt of the echoed back identifier via the radio connection between the mobile and base station.

Haraguchi teaches a data connection (eg. local connection) between the phone and the cradle/charging contacts that allows for data transmission (abstract).

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10) and storing of the identification numbers in electrically EPROM (abstract). This verification operation is required to avoid interference (C1, L11-23) from other wireless devices. Saegusa teaches transmission of ID number(s) AND verifying that they were correctly received which reads on echoing back/acknowledgement. The examiner notes that the "echo back" procedure is merely an added step furthering the security process which is not novel (eg. a design choice – there is a trade-off between how long it will take to authenticate a user versus how much security checking is required). There can be more steps or less steps regarding how the system authenticates the user, each of which would read on the claimed invention except for the fact that one uses more/less security checking.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the mobile sends an acknowledgement separate from the radio connection, to provide 100% verification that the mobile unit received the identification.

As per **claims 3 and 17**, Johnston teaches the method according to claim 12, wherein the mobile radio can be wired to the base station (C5, L36-38) [eg. local connection is an electrical connection] **but is silent on** the connection being via respective charging contacts of the mobile unit and the base station.

Haraguchi teaches data transmission (eg. sending of identification codes) via the charging contacts of the handset and base unit (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that a data connection can be made via respective charging contacts of the mobile unit and the base station, to provide added security since a phone user must have access to the base unit.

As per **claims 5 and 19**, Johnston teaches the method according to claim 12, wherein the step of recognizing the logon situation is triggered when the mobile unit is placed onto the base station.

Haraguchi teaches the sending of an identification code when the phone is placed in the base unit (abstract). One skilled in the art would use this to trigger a logon situation.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that recognizing the logon situation is triggered when the mobile unit is placed onto the base station, to force the user to be located at a base station which provides added security – ie. the user must gain access to the base unit NOT by an RF link.

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**Claims 6 and 20** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of Chiu et al. U.S. Patent 5,500,888 (hereafter referred to as Chiu).

As per **claims 6 and 20**, Johnston teaches the method according to claim 12, wherein the step of generating the identifier is based upon the IP Address of the base station and a radio unit reference number (C5, L49-56) **but is silent on** includes generating the identifier as a random number.

Chiu teaches a security code that is generated by random number generation (abstract). This design would provide better security than Johnston's system since Johnston merely "randomizes" his ID by using a number which represents the number of phones connected to the base station. One skilled in the art would provide a counter that counts the number of phones attached, to limit said number of phones, in conjunction with a random replacing the number of phones. This would provide better security since the number could be a very large number instead of being limited by the number of phones that can connect to the base station.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identification ID is based upon a random number, to decrease the likelihood of an unauthorized person determining said ID since it cannot be easily guessed.

**Claims 7 and 21** rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa and Haraguchi further in view of D'Amico et al. U.S. Patent 5,077,790 (hereafter referred to as D'Amico).

As per **claims 7 and 21**, Johnston teaches the method according to claim 12, **but is silent on** wherein the identifier is generated by the mobile unit and is transmitted to the base station in the step of transmitting the identifier via the radio connection.

D'Amico teaches secure over-the-air registration of cordless telephones (title) whereby the portable unit (eg. cordless phone) sends the base station a request for registration which comprises the link identification number for over-the-air registration and the portable identification number (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identifier is generated by the mobile unit and is transmitted to the base station, to provide the mobile unit with the choice of selecting its own identifier – eg. may want to keep the same identifier for a period of time.

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***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist on 703-306-0377.

SMD  
1-21-04



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